

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF CLAIMS:

1. (original) A method for determining the presence of colorectal tumors or pre- cancerous lesions in a human subject, which comprises :
 - a) DNA extraction from stool samples ;
 - b) PCR amplification of at least three different DNA fragments with a length of 100 base pairs or more, using deoxynucleotide triphosphates or primers labelled with detectable markers ;
 - c) quantitation of the amplified fragments (amplicons);
 - d) calculation of the total amount of different amplicons;
 - e) comparison of the values obtained in (d) with a reference value.
2. (original) A method according to claim 1, wherein the detectable markers used in step (b) are fluorescent molecules.
3. (original) A method according to claim 2, wherein said fluorescent molecules are selected from HEX, 6-FAM and TAMRA
4. (currently amended) A method according to ~~claims 1-3~~ claim 1, wherein at least 8 different DNA fragments are amplified in step (b).
5. (original) A method according to claim 1, wherein the DNA fragments are from 100 to 500bp.

6. (original) A method according to claim 1, wherein the DNA fragments span different regions of p53 or APC genes.

7. (original) A method according to claim 6, wherein p53 fragments corresponding to exons 5-8 are amplified using the following pairs of primers:

- a) ctcttcctgcagtactcccctgc ; gccccagctgctcaccatcgcta ;
- b) gattgctcttaggtctggcccctc ; ggccactgacaaccacccttaacc;
- c) gcgttgctctcctaggttggtctg ; caagtggctcctgacctggagtc;
- d) acctgatttccttactgcctctggc; gtcttgcttgcttacctcgcttagt;

8. (original) A method according to claim 6, wherein APC fragments are amplified using the following pairs of primers:

- a) aactaccatccagcaacaga ; taatttggcataaggcatag ;
- b) cagttgaactctggaaggca ; tgacacaaagactggcttac ;
- c) gatgtaatcagacgacacag ; ggcaategaacgactctcaa ;
- d) cagtgatcttccagatagcc ; aaatggctcatcgaggctca

9. (currently amended) A method according to ~~claims 1-8~~ claim 1, wherein the amplicon quantities are interpolated on a calibration curve obtained from known DNA amounts.

10. (original) A method according to claim 1, wherein the amplicons are quantified with an automatic sequencer/analyser or using fluorimetric, colorimetric, radioactive or spectrophotometric detection systems.

11. (original) A method according to claim 1, wherein the reference value is determined on the basis of case series comprising healthy subjects and patients affected by colorectal tumor or lesions.

12. (currently amended) A kit containing oligonucleotides, labelling agents, a thermostable DNA polymerase and user instructions to carry out the method of ~~claims 1-11~~ claim 1.